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ABSTRACT

Networking or mapping strategies can be used to help secondary school students in remedial reading programs identify and understand ideas and relationships among ideas encountered in their content area textbooks. Essentially, networking and mapping are note taking procedures that require students to represent ideas from texts in some sort of symbolic or graphic diagram. These procedures are like outlining in that they ask students to identify main ideas and supporting details, but they differ from outlining in that they force students to organize and reorganize the ideas abstracted from reading and then to depict them as clusters of related concepts using lines and arrows to show the relationships. Researchers have suggested that creating these diagrams engages students in learning strategies that are more effective than those involved in outlining because developing diagrams forces them to attend to and process relationships among all of the ideas in a passage, rather than just the superordinate and subordinate relations called for in outlining. There is evidence that remedial students find networking and mapping strategies difficult to master. However, with perseverance, teachers can help students use the strategies to become more skilled readers and more proficient learners in their content area classes. (FL)

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IMPROVING COMPREHENSION THROUGH THE USE OF NETWORKING

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In secondary schools, many remedial reading teachers are beginning to work more frequently with actual texts which students are expected to use and learn from in content areas. Reading teachers are doing this because they feel that students do not transfer the skills they learn in reading classes and use them to help themselves understand and study content area texts. Many reading teachers, however, are not always familiar with information in content area texts, especially if they use books from vocational or shop areas. One way reading teachers can begin to familiarize themselves with these texts is to create diagrams or maps of the information in the texts students use in their actual

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classrooms. Researchers in fact have suggested that students do this same type of activity. They have proposed that students can be taught networking or mapping strategies to help them understand and learn from printed material. Use of these strategies is supposed to assist students in identifying and understanding ideas and relationships among ideas they encounter in texts.

Essentially networking and mapping are note taking procedures which require students to represent ideas from texts in some sort of symbolic or graphic diagram. These note taking procedures, networking and mapping, are like outlines in that they require students to identify major ideas in supporting detail. The procedures are different from an outline in that to create a diagram, students must organize and reorganize the ideas abstracted from a text and then depict them as clusters of related ideas using lines and arrows to show the relationships among the ideas. Students must also explicitly label each relationship on the diagram. In outlines major or superordinate ideas are distinguished from supporting or subordinate ideas through indentation and use of different types of letters and numerals. Roman numerals and capital letters signify superordinate information and these are written close to the left margin of a page. Subordinate facts or details are marked by arabic

numerals and lower case letters and this information is indented to the right on the page. With maps or network diagrams, however, the importance of ideas is indicated by placing them on the top of the page so that they occur high on the page whereas less important or supporting ideas are written lower on the page underneath the more important information. Lines are then drawn to indicate how the less important ideas relate to the major ideas they support. For example, students may be reading a text about causes and effects of the Civil War in which causes of the war are the major ideas and the effects of the war are supporting details. Major ideas would be represented on the top of the diagram with minor ideas underneath. Lines and arrows would connect the causes and effects on the diagram and the relationships would be labeled.

Researchers suggest that creating these diagrams engages students in learning strategies that are more effective than those involved in outlining because developing the diagram forces students to attend to and process relationships among all of the ideas in a passage (Anderson and Armbruster, 1980a). Outlines, on the other hand, supposedly require students to distinguish only among superordinate and subordinate relations without specifying other types of relationships in texts such as compare/contrast relations, temporal relations, or causal

relations. Only a few studies have been reported in which the effects of using these new procedures have been investigated. Results of these studies suggests that students trained to use the networking or mapping procedures recall more or perform better on tests than students who use their typical study procedures or students trained in alternative strategies such as imagery or paraphrase (Holly et al., 1979; Anderson and Armbruster, 1980b; Dansereau et al., 1979; and Long et al., 1978). Students participating in these studies and the training procedures used, differed across each study reported so far. Thus, it is difficult to draw conclusions about how to teach students mapping or which students would benefit from training in these procedures. Moreover, it is suggested from some research that mapping may only be effective with materials that are organized in certain specific types of relatiohships such as cause and effect vs definition types of relationships. In our own efforts to teach networking to junior college students, we have observed that extensive amounts of instructional time are needed to teach the strategy to academically unsuccessful students. Our students, like the eighth graders who participated in the Anderson-Armbruster study, expressed great distaste for using the mapping strategy primarily because it was so time

consuming. Teachers, however, have already been successful students and developed some type of note-taking strategy which probably is based on an outlining format. All they have to do to use mapping is to modify the outlining skills they already have. There are two benefits teachers would gain from this. First, they would learn something about content that they are trying to help the students learn, and secondly, it would give them information that would aid them in working with students in a remedial setting because major concepts and relationships among concepts are diagrammed and teachers would have a basis for planning various types of lessons. For example, once the teacher has created a map, she already has the basis for creating a graphic organizer or structured overview. She also has pinpointed key concepts and vocabulary words that she could help the students learn. Mapping also helps the teacher know where text is difficult and because she has intensely studied the text and from this she will know more about what types of questions she might want to use when she creates a reading guide or she might be able to use it as a basis for creating a gloss to go along with the text to help the students when they study.

Another important consequence of mapping the text

for teachers and then teaching from actual content text is that it provides motivation for students. Students, we have found, are more willing to actively participate in remedial settings when they see they are getting extra help learning actual information that they have to know to pass their classes.

Another important consequence is that relationships between remedial teachers and content teachers improve. The content teachers see that students perform better in their classes and they begin to perceive the reading teacher as someone who supports them in their job and helps them cope with students who have difficulty learning in their content. While reading teachers have been turning to content area texts more and more, these teachers are not trained in content areas. By using mapping, they can familiarize themselves with information from a content area and with certain difficult areas students may encounter when trying to learn from content area texts.

Reading teachers cannot, however, take over the job of content teachers. Content teachers are the experts in their fields, but reading teachers can provide them some support and help the content teachers teach those students who need more time, extra help, and need more support in learning.

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